

1  
2 DEVICE FOR SUSPENDING A RECORDER  
3 AND METHOD FOR USING THE SAME

4  
5 BACKGROUND OF THE INVENTION

6 Field of the Invention.

7 This invention pertains to the general field of carrying a woodwind musical  
8 instrument known as a recorder.

9 Description of the Prior Art.

10 The recorder is an instrument that is of such size that it can be carried easily. This  
11 instrument is most often used by children in early grade school for instruction in music.  
12 Most often the child will purchase a recorder. The child will then carry the recorder to  
13 class and carry it in the hand during class. If the child needs to use the hands for another  
14 purpose, the recorder is laid down. As such, the recorder is subject to loss, contamination  
15 or confusion when play is to be continued. Also, like with anything a child is forced to  
16 carry in their hands, the recorder can be inappropriately used as a toy, weapon, or  
17 whatever fits the occasion.

18 Prior art is limited to some resourceful teachers that have simply tied a string around  
19 the recorder with some sort of loop that is placed around the child's neck to suspend the  
20 recorder. Because the knots may slip, come untied or can not be readily untied, this  
21 method has not gained wide support. In addition, after the teacher has tied all the knots  
22 required by the students, the teacher has little time left for instruction. Thus, at the present

1 time, there is no suitable means for the hand free carrying of the recorder. Also, this  
2 method has only been applied to recorders possessing a definite ridge along their shaft, and  
3 not merely to recorders with a tapered shaft.

#### 4 Objectives.

5 It is therefore an objective of this invention to provide a device for conveniently  
6 carrying a recorder with an expanding circumference shaft, from a strap that is worn about  
7 the neck.

8 Another objective of the invention is the realization of the above mentioned objective  
9 with simple, reliable and inexpensive hardware.

### 10 SUMMARY OF THE INVENTION

12 The invention provides a device for carrying a recorder and a method for using it.

13 The device comprises a ring attached to a strap. The user wears the strap around  
14 their neck, with the ring in the front. The recorder is thus suspended from the neck of the  
15 user.

16 The method and apparatus of this invention consist of a ring and an attached strap.  
17 The ring is made of durable material and is of sufficient inside diameter so as to fit, after  
18 the strap has been secured to the ring, snugly around the shaft of the mouth piece of the  
19 recorder. The ring is secured on the recorder by pulling the recorder apart at its dividing  
20 point or sliding it over the lower narrow end and then slipping the ring around the mouth  
21 piece section and sliding it up the shaft until it is securely lodged on the shaft. Because the  
22 diameter of the shaft increases towards the end where the instrument is blown, the ring will

1 be secure on the recorder shaft between the fingering holes and the mouth piece. The two  
2 pieces of the recorder are then reconnected, if applicable.

3 Using the device thus frees both hands of the user. This and other advantages of the  
4 present invention will be understood and more appreciated after a consideration of the  
5 following drawings and the detailed description of the invention.

### 6 7 BRIEF DESCRIPTION OF THE DRAWINGS

8 FIG. 1 is a perspective view of the ring of the device of the invention.

9 FIG. 2 is a perspective view of the device of the invention.

10 FIG. 3 is a perspective view of a recorder being suspended from the device of the  
11 invention.

### 12 13 DETAILED DESCRIPTION OF THE INVENTION

14 Referring to the drawings, FIG. 1 illustrates the general configuration of the ring 1  
15 before the strap is attached to it.

16 The ring 1 is made of durable material so as to be able to withstand the rigors and  
17 forces that would be anticipated, when the device is in use by elementary age school  
18 children. As illustrated in FIG. 1, the ring 1 has an outer surface 3, an inner surface 4 and  
19 a side surface 5. The ring also has a radial thickness, which is defined as the distance  
20 between the inner and the outer surface.

21 Referring to FIG. 2, the strap 2 is made of a material that is strong enough to hold  
22 the recorder, yet be comfortable when placed around the neck. Knot 6 is any knot that will

1       neatly secure the ends of the strap 2.

2               FIG. 3 shows a recorder A supported by the device of the invention. The recorder  
3       A has a proximate end and a distal end. The mouth piece (otherwise known as mouthpiece)  
4       can be seen at the proximate end, since it has a larger diameter than the adjoining shaft.  
5       The recorder A defines a juncture point C between the two ends. The recorder A can be  
6       separated at juncture point C into two sections, lower section D and upper section B. The  
7       mouthpiece is included in upper section B. The shape of the recorder is one of substantial  
8       circular symmetry around an axis. That is why relevant terms like diameter are used, even  
9       though the shape of the shaft might not be exactly circular at some points.

10              When FIG.s 1, 2 and 3 are viewed together, it becomes apparent from scaling  
11       considerations that the radial thickness of the ring is about 1/4 the diameter of the recorder  
12       at the point of the recorder where the ring is lodged.

13              The relationship of the inner surface 4 and the recorder is best seen in FIG. 3. The  
14       inner surface 4 of the ring is circular with a diameter larger than the diameter of the  
15       recorder A at the point of the juncture C. The diameter of the upper section increases  
16       gradually from the juncture point C to the air hole of the mouth piece. As the recorder  
17       diameter thus increases, at some point it becomes larger than the diameter of the inner  
18       surface 4. This will cause the ring, as it is being slid from juncture point C towards the  
19       mouthpiece, to become lodged at some point before reaching the mouthpiece.

20              It is preferred that the inner diameter is such that lodging happens when the device  
21       is approximately one inch above the juncture point C.

22              The ring 1 is attached to the recorder A by pulling apart the two pieces B and D of